

# 2010 Scheme

Reg. No.: .....

## First Year BDS Degree Supplementary Examinations January 2020

### General Human Physiology and Biochemistry

Time: 3 Hours

Max Marks: 100

- Answer all questions
- Draw diagrams wherever necessary
- Write **SECTION A** and **SECTION B** in separate Answer books (32 Pages). Do not mix up questions from Section A and Section B.

**QP CODE:102002**

**Section A - Physiology**

**Marks: 50**

**Essay**

**(14)**

1. Describe the structure of neuromuscular junction with the help of a diagram. Discuss how a nerve impulse is transmitted across the neuromuscular junction. (5+9)

**Short essays**

**(2x8=16)**

2. Describe the transport of carbon dioxide in blood.
3. Write down the composition of gastric juice. What are the functions of its components. Discuss the mechanism and regulation of gastric acid secretion

**Short notes**

**(5x4=20)**

4. What is meant by the term homeostasis.
5. Composition and functions of blood.
6. Micturition reflex
7. Anterior pituitary hormones and their functions.
8. Describe the pain pathway from origin to termination. What is meant by referred pain

**QP CODE:103002**

**Section B - Biochemistry**

**Marks: 50**

**Essay**

**(14)**

1. Define glycolysis. Write the steps and energetics of anaerobic and aerobic glycolysis. (1+10+3)

**Short essays**

**(2x8=16)**

2. Write the sources, biochemical functions and deficiency manifestations of vitamin A.
3. Enumerate the different levels of organization of proteins. Explain in detail about the secondary structure of protein

**Short notes**

**(5x4=20)**

4. Mention the organ in which albumin is synthesized and write the functions of albumin.
5. Mention the biochemical functions and deficiency manifestations of fluoride.
6. Name the different types of RNA. Explain the structure of tRNA with a neat labelled diagram.
7. What are the sources, functions and deficiency manifestations of Vitamin C.
8. Explain the digestion and absorption of carbohydrates.

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